



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>7</sup> : G06F 17/60	A1	(11) International Publication Number: <b>WO 00/70515</b> (43) International Publication Date: 23 November 2000 (23.11.00)
---	----	---

(21) International Application Number: PCT/US99/28329

(22) International Filing Date: 30 November 1999 (30.11.99)

(30) Priority Data:  
60/134,363 14 May 1999 (14.05.99) US

(71) Applicant: HOTOFFTHEWIRE.COM, INC. [US/US]; Suite 27, 266 Main Street, Medfield, MA 02052 (US).

(72) Inventors: HOSEY, Joseph, T.; 32 Evergreen Way, Medfield, MA 02052 (US). SULLIVAN, Michael, J.; 2 Bowman Lane, Westborough, MA 01581 (US).

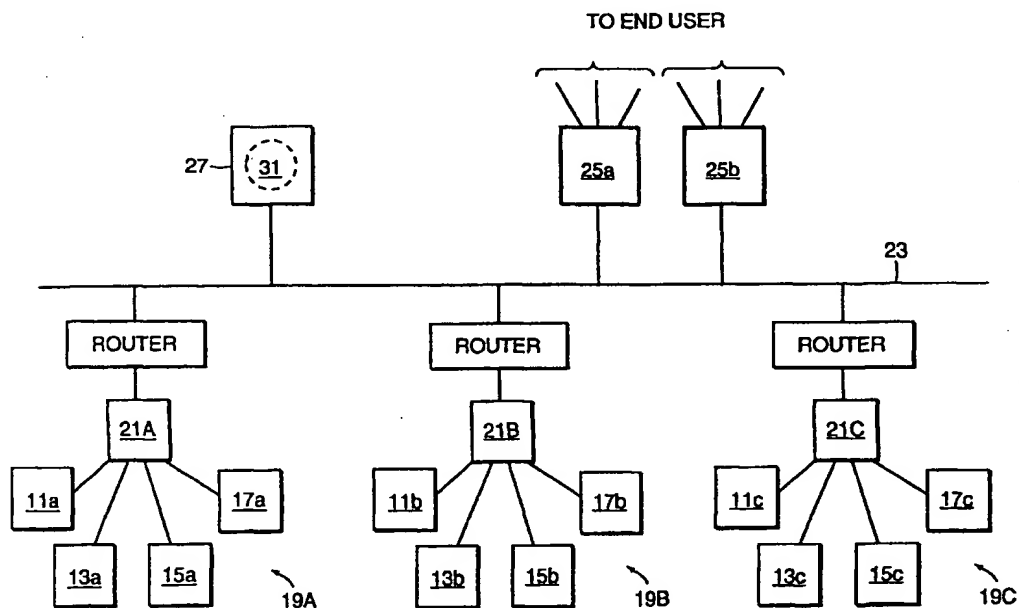
(74) Agents: WAKIMURA, Mary, Lou et al.; Hamilton, Brook, Smith &amp; Reynolds, P.C., Two Militia Drive, Lexington, MA 02421 (US).

(81) Designated State: JP.

Published

With international search report.

(54) Title: COMPUTER METHOD AND APPARATUS ENABLING WHOLESALE COMMERCE



## (57) Abstract

Computer method and apparatus provide wholesale ecommerce. Provided are a server on the Internet and a database maintained at the server. The database holds seller information, buyer information and merchandise information. A user interface with the database enables seller users and buyer users to communicate to each other and make transactions utilizing the database.

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
DY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakhstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

## COMPUTER METHOD AND APPARATUS ENABLING WHOLESALE COMMERCE

### BACKGROUND OF THE INVENTION

Most manufacturers and Distributors/Wholesalers presently bring their  
5 product to market in one of two ways: Either by direct factory sales or through a  
network of broker/manufacturers representatives.

Typically, larger manufacturers employ direct factory salespeople. Small  
and medium manufacturers will choose the broker network. In either case, the "80-  
20" rule applies. That is, a given salesperson will realize 80% of his volume with  
10 20% of his accounts. That salesperson's 80% revenue will likely occur at the very  
large retailers or wholesalers. That leaves an enormous amount of small and  
medium retailers and wholesalers neglected by the traditional manufacturers sales  
force.

Now, consider the perennial problem of excess inventory. This is a chronic  
15 issue with most manufacturers that evolves from several inherent attributes of the  
retail world: end of season products; over-runs; discontinued brands; close-out sales;  
package changes; etc. Due to the dynamics of the retail industry, the direct factory  
salesperson and the broker/manufacturers rep is not rewarded to sell excess  
inventory. The commissions are typically lower than "in-line" products and the  
20 opportunity to sell this inventory is short-lived. Quite often, if a salesperson has a  
prospective buyer for excess inventory, he will find the goods unavailable when he  
closes the sale because of the "first come, first serve" policy. In short, selling excess  
inventory as opportunity buys is an unproductive use of the traditional retail  
salesperson's time, when compared to full commissioned, "in-line" product without  
25 quantity constraints.

Lastly, consider the international retail/wholesale market view. From a U.S.  
manufacturer's perspective, only the top echelon of manufacturers have sales and  
distribution channels in foreign markets. The gross margins in retail and the  
traditional barriers of entry into many countries prevent the small and medium

-2-

supplier from participating. For example, PUR Drinking Water Systems, the number two player in the explosive household water filtrating market, has zero international sales. Furthermore, it is important to point out the various seasons that run opposite. As the United States gets closer to the springtime an American  
5 manufacturer named Melnor Inc. is sitting on 20,000 snow shovels due to a warm winter. It is turning to Autumn in South America and in Santiago, Chile, a buyer from Velasquez Distributors is surfing the Internet and happens upon the present invention. He sees a lot of snow shovels at \$4.00 per shovel, and a "Make Us An Offer" icon which when selected connects him to the present invention Web site.

10 From the above, applicants conclude that there is enormous opportunity to capture sales at small and medium sized retailers and wholesale distributors. They are largely ignored, but still make up at least 20% of all wholesale revenue.

There is enormous opportunity to take advantage of the "real time" Internet and post "opportunity buys" of excess inventory from large, medium and small sized  
15 manufacturers.

And finally, the untapped international market will not only open sales channels to our manufacturers who, until now, have been limited to North American borders, but the present invention will potentially begin to connect wholesale market worldwide. A producer of lawn and garden products in New Zealand now has  
20 access and exposure on a premier Internet site with retail stores in Europe and North America. This producer is Gubba Products, Ltd. of New Zealand, and one of the first international customers displaying on the present invention.

Electronic commerce between businesses is not new. Businesses began sending and receiving purchase orders, invoices and shipping notifications  
25 electronically via Electronic Data Interchange (EDI) in the late 1970s. Analysts estimate that businesses already trade well over \$150 billion in goods and services using EDI over private value-added networks. But, because EDI over private networks was initially expensive and required training and installation, it was out of the reach of many small and medium-sized businesses. The Internet makes  
30 electronic commerce affordable to even the smallest home office. Companies of all sizes can now communicate with each other electronically, through a web of

interconnected networks including the public internet, intranets, extranets and value-added networks.

The rapid growth of business-to-business electronic commerce is being driven by lower purchasing costs, a reduction in inventories, lower cycle times, more efficient and effective customer service, lower sales and marketing costs, and new sales opportunities.

In addition, the present invention is designed to "level the playing field" in an industry where several giants are dominating. To illustrate this claim, consider that the most recent decade has seen the rise of "category killers." Category killers are large conglomerates that focus on a general category of consumer merchandise. The volumes and pricing they offer the public are such that the small and medium-sized retailers in the same category cannot compete with them. Home Depot is the category killer for hardware. Staples, Inc. is the category killer for office supplies.

On the supplier side, the present invention allows small and medium-sized companies to gain instant global exposure for their products, twenty-four hours a day, seven days a week. This Web site will give a global sales platform for companies that could not normally afford such broad exposure.

On the buyer side, the invention enables a world of merchandise to be brought to any and every buyer who has a need.

Furthermore, the current (traditional) Sales, Marketing and Distribution model works under one of the two following scenarios:

Direct Factory Sales People: This is the typical model used by big multinational brands. The field salesperson is a direct employee of the company and requires capital expense for salary, health insurance, operating expenses, bonus structure, etc. This is often a variable cost for sales as the cost change versus the volume produced by the salesperson fluctuates.

Independent Manufacturer's Representative: This arrangement is a fixed cost of sales where commissions range from 2% to 15%, depending on the product category and industry. No additional costs are incurred by the manufacturer, as payment is based on performance only.

In either scenario, the supplier/manufacturer is continually looking to expand the distribution of their products in to new accounts and new markets. For the field sales people, whose income depends on sales, the bulk of their time is spent maximizing sales with existing accounts rather than devoting missionary work  
5 needed to develop new accounts that may not pay off long term.

The consolidation of accounts through merger, acquisition, and bankruptcies, indicates there is an ever-shrinking account base for new business. This causes a problem for growing business of "in-line", ongoing products, and "opportunity buy" products.

10 Regarding "opportunity buy" products, the supplier often needs to move these products at a lower gross margin. The sales commission is often lower than in-line products. This makes it less desirable for the salesperson to spend time trying to get the orders for opportunity buys.

Instead of relying on the current business model, with all of its inherent  
15 shortcomings, a new paradigm shift appears. With the present invention, a supplier no longer has to rely on the field salesperson's desire to seek out new, potentially unproductive accounts and investment spend time and resources. With the present invention, the sales presentation and product offering is custom-made by the home office, in any lay-out or presentation style they desire. This allows the suppliers to  
20 put their best foot forward.

Access to the invention system is convenient on the buyer's timetable - not the timetable of the factory direct salesperson or the manufacturer's rep.

One sees the potential paradigm shift from the traditional model even more apparent on the international stage. Nike recently bought out their key distributor in  
25 South America because they had lost control of the market and distribution channels. If a company the size of Nike feels they have lost control, how does a smaller company with fewer resources penetrate international markets? With the present invention, the supplier has immediate exposure to the entire retail market in a particular region or country. The product distribution chain will have fewer  
30 roadblocks and more choices.

Thus, primary competition is the traditional business model, which has been used for decades. This model cannot sustain itself in today's global marketplace.

However, it is the standard. The biggest challenge applicants have is to convince many buyers and suppliers to change to the new model of e-commerce over the Internet.

Another significant source of competition will be those who clone applicants  
5 business model. Applicants are positioned to be first to market to create the First Mover Advantage.

By capturing marquis suppliers and then capturing the trust and name recognition of the retail/wholesale global purchasing community volume, later entries to this market will be less likely to create their brand name.

## 10 SUMMARY OF THE INVENTION

### The Concept

The present invention is an Internet ecommerce Web site that provides/enables a premier destination for retail buyers, wholesale distributors and suppliers worldwide.

15 The invention Web site enables "in-line" consumer goods and "opportunity buys" (clearance, end of season, closeout) to be offered to the global marketplace at deep discounts through the convenience of the Internet.

The present invention Web site is closed to the general public. This is a Web site intended for volume purchases or minimum buys of brand name consumer  
20 goods by retail buyers, wholesale distributors, corporate/industrial/institutional purchasing agents and volume importer/exporters. This Web site is in essence the first of its kind electronic clearinghouse for wholesale commerce.

The invention connects the global buyer with the global seller, ultimately increasing exposure and decreasing transaction costs to both. Applicants believe  
25 this business model will transform how goods are bought and sold worldwide.

The invention allows convenience, real-time price comparison, inventory and product updates and seamless transactions between the buyer and supplier.

The invention Web site provides news updates via downloaded industry publications. Links to these publications' Web sites are also provided.

30 Applicants anticipate significant time spent on this Web site by industry professionals. This is a destination site which will save the user significant time in

-6-

his/her workday, with no need to link to other sites to complete the transaction or to gather information.

The invention Web site provides a value-added, customer focused Web site that has the potential to transform the existing wholesale commerce model.

5        Product Services

The invention Web site is based on contracts with suppliers of consumer goods from many categories. Contracts include commission to be paid, membership fees and advertising options. Other "boilerplate" language is included such as payment terms, termination clause, etc.

10        General categories of brand name consumer goods; "in-line" products, "opportunity buys" (clearance items, closeouts, end of season, etc.) as well as "As seen on TV" products are made available.

Thousands of products within these categories are shown with individual specifications, pricing and packaging information.

15        The invention software enables the buyer to purchase products in wholesale quantities from this Web site. The migration path of this software enables real time connections with supplier databases for inventory, price and specification updates on their products, while the Web site does not carry inventory or receivables. Instead the invention Web site facilitates wholesale transactions, on commission, of  
20        products sanctioned by the manufacturer/supplier. Thus, this provides a direct from supplier/ manufacturer purchase.

Other value added features of this site include order tracking, and an industry news section for the buyer. For example, the Web site prompts the user to "click here to see how Federal Express or UPS can customize a shipping program for your  
25        company". In response to a user selecting this option, the Web site provides shipping assistance information and links. Subsequently, i.e., after a purchase order has been completed by a buyer and accepted by a seller, the Web site prompts the user to enter a tracking number. Tracking support is then initiated and provided through the shipping company's tracking system.

30        Site traffic analysis and point of sale information are also available to the suppliers.



-7-

Financial information and links to help facilitate transactions are provided. (For example, through a prompt "click here to see how MasterCard can assist your financial needs" or "click here to see how GE Capital can finance your purchase", with supporting application and letter of credit processes.)

- 5 Customer service phone, fax and email are shown throughout the Web site, giving the buyer an option to discuss products, pricing and logistics with friendly, knowledgeable salespeople.

### The Market

- The targeted products to sell on the invention Web site are largely brand name consumer goods from a vast array of categories. The targeted customer base for the invention Web site is the global market of retail buyers and wholesale distributors. Applicants believe that the untapped potential of the Internet will enable the seller to gain global exposure to sales channels not yet realized. This will also enable the buyer to purchase products with real-time price comparison data and allow a convenient "one stop shopping" experience, reaching into "closed" and emerging markets.
- 10  
15

### BRIEF DESCRIPTION OF THE DRAWINGS

- The foregoing and other objects, features and advantages of the invention will be apparent from the following more particular description of preferred embodiments of the invention, as illustrated in the accompanying drawings in which like reference characters refer to the same parts throughout the different views. The drawings are not necessarily to scale, emphasis instead being placed upon illustrating the principles of the invention.
- 20

- Fig. 1 is a schematic diagram of a computer network in which the present invention operates.
- 25

Figs. 2a and 2b are overview diagrams of the main pages of the invention Web site, namely the Home Page, Catalog Page, Registration Page and Transaction Page.

- Figs. 3-5 are table diagrams of the supporting database of the invention Web site.
- 30

## DETAILED DESCRIPTION OF PREFERRED EMBODIMENT

Illustrated in Fig. 1 is a plurality of networks 19a, 19b, 19c. Each network 19 includes a multiplicity of digital processors 11, 13, 15, 17 (e.g., PC's, mini computers and the like) loosely coupled to a host processor or server 21a, 21b, 21c for communication among the processors within that network 19. Also included in each network 19 are printers, facsimiles and the like. In turn, each host processor 21 is coupled to a communication line 23 which interconnects or links the networks 19a, 19b, 19c to each other to form an Internet. That is, each of the networks 19 are themselves loosely coupled along a communication line 23 to enable access from a digital processor 11, 13, 15, 17 of one network 19 to a digital processor 11, 13, 15, 17 of another network 19. In the preferred embodiment, the loose coupling of networks 19 is the World Wide Web Internet.

Also linked to communication line 23 are various servers 25a, 25b which provide to end users access to the Internet (i.e., access to potentially all other networks 19, and hence processors 11, 13, 15, 17 connected to the Internet). The present invention is a software program 31 operated on and connected through a server 27 to the Internet for communication among the various networks 19 and/or processors 11, 13, 15, 17 and other end users connected through respective servers 25. In the preferred embodiment, the invention is implemented as a Web site 31 hosted on a server 27 in Fig. 1. In the preferred embodiment, the Web site 31 is hosted by Web-worx, LLC at a co-location with UUNET in Virginia. Web-worx employs a dedicated high end Sun Microsystems server 27 that is resident at the co-location.

The hardware utilized offers high speed access, virtually unlimited memory for the invention application, and reliability (fully redundant capability). The dedicated T3 line to the backbone at UUNET maximizes the speed of data over the Internet. A full backup to the server 27 is performed every month, while an incremental backup to the server 27 is performed daily.

The server 27 software enables systems administration to maintain the following:

- Control, limit and monitor access to the Web site 31 by individual users.

5

- Update product specs. and pages to the site 31 automatically.
- Support Oracle databases.
- Manage the site 31 remotely (i.e. from customer service terminals)  
using
- Web browsers.
- Conduct secure electronic commerce.

The software used by the development team at Web-worx to support the Web site 31 includes the following:

- Programming in PERL 5 connected to an Oracle 8 database.
- Wide browser compatibility.
- 5     • Database and online catalog made fully searchable and configurable.
- Taxes, shipping, duties are automatically calculated based on ZIP code or country code.
- Transaction software to allow purchase orders and credit card payments.

10       Turning now to Fig. 2, the invention Web site 31 utilizes four main or working Pages displayed in respective screen views to the end user. The first working page is the Home Page with various portions, such as advertising banner, introductory information (via "About Us" selection), special deals of the day notice (via an appropriate icon) and industry publications (downloaded to the invention  
15 Web server 27). In the preferred embodiment, different industry publications are displayed to different end users as a function of the user identification used to log on to the invention Web site 31. Also links (e.g., hyperlinks, Soft Change Forms trademarked by Web-worx, and the like) are employed to enable the end user to contact the Web site of the publication as desired.

20       In one embodiment of the present invention, the Home Page provides working areas (e.g., "buttons", menu selections, icons or other selection means) for accessing and effectuating credit applications (with Visa or American Express, for example) and a letter of credit for international end users for example.

Also the Home Page enables the user to access the Catalog Page (Fig. 2) and  
25 the Registration Page (Fig. 2). The Catalog Page provides a hierarchy of categories and subcategories that ultimately lead to particular goods available by a respective seller user. The granularity or number of levels of subcategories under a subcategory initially depends on seller-user input. Upon purchase of all goods/merchandise in a subcategory (leaving that subcategory empty), the invention  
30 software 31 removes that subcategory from the Catalog Page screen view. This prevents end users from drilling down to an empty listing and ultimately provides for a more user-friendly experience. The uppermost level or "root" categories

-11-

statically remain as a formative/permanent part of the Catalog Page. Example root categories are housewares, sporting goods, apparel, hardware/tools, etc.

The foregoing presents a buyer-user with ongoing, list-price merchandise known as "in-line" merchandise as entered into the hierarchy by seller-users. In a preferred embodiment, the Category Page also provides a selection means (icon, "button", menu option, etc.) for below-list opportunity buys, e.g., closeouts, discontinued merchandise, end of season deals, and the like. The offers for these goods are posted at a bottom line dollar price or "best offer" price.

As can be seen from Fig. 2, the Catalog Page also provides access to manufacturer information, product specification, packaging information and the like. In one embodiment, a portion of the Catalog Page serves as a "bulletin board" for goods wanted by a buyer, but not found in the category/subcategory listing. In particular, if a category/subcategory is empty and therefore not listed, a buyer-user may indicate a desire for goods in such a subcategory. The invention Web site posts an indication of the goods wanted by the buyer-user either programmatically in direct response to buyer-user input or via Web site administration (i.e., manually posted) in response to email/communications from the buyer-user. Also if a seller-user subsequently enters available goods for that category/subcategory, the invention software 31 and/or Web site administrator matches up the seller-made-available goods with the buyer-in-want of those goods as previously indicated, and notifies the buyer-user. Email, pager or facsimile transmissions are examples of means used to notify the buyer-user.

From the Catalog Page the buyer-user also accesses the Transaction Page to initiate a purchase. As a function of the log-in identification of the buyer-user, the invention software 31 cross references the buyer-user account number, location, delivery method, etc., and presents/displays an interactive order request bearing the known buyer information as a default. The buyer-user may modify default information, add thereto and the like through a keyboard, mouse and other input devices. Upon the buyer transmitting the completed order request, the invention Web site server 27 places the order request in a general email queue. The Web site administrator (staff) responds to the received order request and obtains a purchase order number or credit card number from the buyer-user. In turn, the invention

software 31 provides the buyer-user with a printable confirmation and forwards the order request to the seller/supplier of the ordered goods. Facsimile or email transmission is employed from the invention Web site server 27 to the seller's fax machine or server.

5           The seller accepts and processes the order request by (1) arranging delivery, etc. with the buyer and by (2) contacting the invention Web site 31 with an acceptance. In turn, the invention Web site 31 enables the buyer to track delivery by hyperlinking to the third party delivery company's server/tracking system. One example of such linking to a delivery service's system is provided by  
10   www.outpost.com.

In a preferred embodiment, the transaction phase of communication follows the HTTPS protocol (i.e., hypertext transfer protocol secure). Other security means and methods are suitable.

Referring back to Fig. 2, the Registration Page initializes individual end  
15   users (buyers and sellers). Based on data/information input by the user on this Page/screen view, the invention software 31 sets certain defaults and corresponding identification. For example, upon the end user registering as a buyer, the invention software 31 presents/displays a series of screen views starting from the Catalog Page and ending with an order request customized to that buyer (bearing shipping address,  
20   account number, etc.). On the other hand, registering as a seller/supplier causes the invention software 31 to present a series of screen views from the Catalog Page to enable the seller/user to add merchandise to the category/subcategory hierarchy with terms and conditions specific to that seller.

To support the foregoing Web Pages and user interactivity with the Web site,  
25   the present invention is structurally or architecturally (software-wise) formed of a database and a tracking type object commonly known as a "cookie". Figs. 3-5 illustrate the database of the preferred embodiment. In particular, the database is organized into various tables or files. The User files (Fig. 3) hold user data (whether buyer or seller, where one field designates or distinguishes a buyer from a seller end  
30   user). There is one such User file for each buyer and seller. The Billship files (Fig. 4) hold user billing address and shipping/distribution location (depending on whether a buyer or seller). There is one Billship file per user.

The Category files (Fig. 3) provide the root categories and subcategories. There is one file per category/subcategory. The Search files (Fig. 3) form the sequence or chain of the categories/subcategories for the hierarchy discussed above. These files support the drill down method of searching through the Catalog Page discussed above and further discussed below.

The Detail files (Fig. 4) hold the manufacturer information and support the manufacturer drop down screens of the Catalog Page (Fig. 2). The Item files (Fig. 5) hold product data and support display of product specification, etc., in the Catalog Page screen views. There is one Item file per product posted by a seller. That is, the seller provides the data for the various fields in the Detail files and Item files per merchandise being sold through the invention Web site. The seller provides the data on-line at the invention Web site with appropriate prompting by the invention software end user interface, and/or to a Web site administrator/staff who enters the information into the detail and item files accordingly.

The Orders and Lineitem files (Fig. 5) support the order request and ensuing transactions discussed above in the Transaction Page (Fig. 2).

The cookie (per user) tracks where the user has positioned the cursor throughout a session and hence tells where the user is at all times on the invention Web site. The cookie stores buyer-user history, i.e., indicates buying habits. For a seller-user, the cookie stores seller history which provides an indication of posting habits. With this information, the invention software is able to personalize displayed Pages/screen views. For example, in the Home Page different industry publications are displayed to different users as a function of the data in the user's cookie and/or User file.

The following example is illustrative of the invention software, including the building and using of the database and the employment of cookies to provide a novel computer method and apparatus for wholesale commerce. It is understood that other architecture, features, screen views and various graphical user interfaces are suitable for providing the functionality of the present invention.

### 30 Example

The following is designed to give a brief overview of the experience involved in using the preferred embodiment from two (Seller and Buyer) perspectives.

First, the buyer's experience will be examined, followed by the supplier's experience. Finally, ideas for future growth of the site have been included, particularly value-added services designed to enhance the shopping experience.

#### Prospective or First Time Buyer

1. On arriving at the home page, the new buyer is greeted with the main level categories from which he/she will be able to choose (after registering), featured products, news, and a couple of navigation options designed to introduce him/her to the site. The new buyer can then read about the benefits of free membership to choose to register.

2. When registering, the user is asked for the following information: Name, Title, Company, Address, Address 2, City, State, postal Code, Zip+4, Federal Tax ID, Country, Phone, Fax, Email, Accept email notification (Y/N), Username, Password, Challenge phrase, Challenge answer, Bill to location, and Ship to location (up to 10). Web site staff add other information to the database, including unique ID number, and information on the buyer's habits as his/her shopping progresses.

3. After registering, the buyer is allowed to enter the catalog section of the site and begin shopping. An automatic email notification is also sent to the buyer that will include the user name and password for reference.

4. The user is also passed a "magic cookie" to allow for easy return to the site and page. If the user decides not to accept the cookie, or if something happens to that cookie, the user will be asked for his/her user name and password on his/her next visit. Without a cookie, the user is tracked through authentication (that is, "tagged" with their user name) throughout the ecommerce experience.

#### Buyer

5. Once inside the catalog area, the user can choose from the list of categories. These top-level categories are hard-coded (as opposed to the dynamic sub-categories) and determined by the Web site administrator. From there, the user



is presented with second level categories from which to choose. This process continues as long as needed until a final category is reached. This will likely mean 2-3 subcategory selections at a maximum. For example, a buyer might choose to go into Appliances, then toasters, then two slice toasters (2 subcategories) or a buyer might want to shop in Apparel, then men's, then footwear, then sneakers (3 subcategories). While the programming has the capability for more levels in the category process, there will likely not be a need for many more than this. Category selection also has an unlimited breadth. In our example above, therefore, the number of possible choices after Appliances is limitless (e.g., toasters, blenders, waffle irons, break makers, microwaves, past makers, etc.)

6. When a final category is reached, the buyer sees a listing of the available products in that category and the following information on each: Product name, Logo, Visual Description, Photo - thumbnail, MSRP, List Price, Opportunity buy, Closeout (Y/N), and Make offer (Y/N). From this point the user can click on a link to get more Details or choose to place the product in his/her shopping basket. If the supplier allows, for any given product, the buyer can make an offer on the item. This will go into the buyer's shopping basket, but not be considered an order until the supplier approves the price offered.

7. If the buyer chooses to see the Details page, he/she is presented with the same information as the product listing page and the following: UPC number, Date posted, Featured product (Y/N), Model number, Quantity available, Specifications (free form), Carton UPC, Price per case, Master pack quantity, Unit carton dimensions, Unit weight, Master Pack carton dimensions, Master pack weight, Master pack cube, Master packs per pallet, Case quantity, Case carton dimensions, Case weight, Case cube, Cases per pallet, Cases per layer, Layers per pallet, Pallets per truck, Payment terms, freight/shipping terms, Minimum Order, Shipping policy (free form), Other terms, Ad/Co-op accrual available, Accounts payable address, Shipping point 1, Shipping point 2, Shipping point 3, Returns policy (free form), Lead-time and Export only (Y/N).

8. After viewing the Detail page, the user can either purchase that item or look for other items by again using the category drill-down or by searching.

-16-

9. When the buyer goes to "checkout", all the pertinent information required on the order form is by default populated from that buyer's information stored in the database. He/she can make changes to this information as necessary.

10. The information is sent to the invention Web site for processing. At each level of the drill-down process, the user has a link to any previous level he/she chooses. A Search function is also incorporated to allow the buyer to search for a particular product and/or brand name. The Search is contained in the global navigation, as are links to the home page and "talk to us", a page with a contact form, phone, fax, etc.

10 Prospective or First Time Supplier

1. On arriving at the Home page, the new supplier is greeted with the main level categories from which he/she will be able to choose (after registering) featured products, news and a couple of navigation options designed to introduce him/her to the site. The new supplier can then read about the benefits of free membership or choose to register.

2. When registering, the user is asked for the following information: Name, Title, Company, Address, Address 2, City, State, Postal Code, Zip+4, Federal Tax ID, Country, Phone, Fax, Email, Accept email notification (Y/N), User name, Password, Challenge phrase, Challenge answer, and Accounts payable location. The invention Web site will add other information to the database including unique ID number and information on the supplier's habits as he/she continues to post items.

3. After registering, the supplier is allowed to enter the catalog section of the site and begin posting items for sale.

4. The user is also passed a "magic cookie" to allow for easy return to the site and page customization. If the user decides not to accept the cookie, or if something happens to that cookie, the user will be asked for his/her user name and password on his/her next visit. Without a cookie, the user is tracked through authentication, that is, "tagged" with their user name throughout the experience. An automatic email notification is also sent to the supplier that will include the user name and password for reference.

Supplier

5. When posting an item for sale, the supplier will be asked for as much information as possible about the product (see The Buyer's experience, steps 5-7.) Some of this information will be required (e.g., UPC code, prices, quantity, etc.)
- 5 while much of the information on any given product will be optional. Optional information not provided by the supplier will not show up at all for the buyer (this being preferable to showing all categories to the buyer with some being listed as N/A). An option will also be provided for a "kill date" to allow the supplier to have the item automatically removed if it is still on the site as of a certain date.
- 10 Otherwise, items are automatically removed when the inventory reaches zero, or is less than the minimum order.

6. When an item is sold, the supplier will receive a confirmation of the sale from the invention Web site. In the case of a "make offer" item, the supplier will not know who the prospective buyer is until the offer is accepted. This protects
- 15 the invention Web site from being circumvented in the process.

Orders are transmitted to the server through an SSL (Secure Socket Layer) for user security. Steps have also been taken to make sure that cookie tampering will be kept to an absolute minimum. All orders will be permanently databased.

- While this invention has been particularly shown and described with
- 20 references to preferred embodiments thereof, it will be understood by those skilled in the art that various changes in form and details may be made therein without departing from the spirit and scope of the invention as defined by the appended claims. For example, some enhancements include:

- Personally greeting the buyer, reminding them of previous purchases and
- 25 even letting them know how much they have saved over list price since joining the Web Site 31.
- Allowing order status and order tracking for both supplier and buyer.
- Allowing users to change any and all profile information. They will be required to re-authenticate to change this information
- 30 • Live chat customer service - possibly from liveperson.com, 8 a.m. - 8 p.m. EST
- Currency exchange rates--could be internal or outsourced

-18-

- Broadcast email messages on featured products or products of interest to a certain group, possibly along with news tidbits.

## CLAIMS

What is claimed is:

1. Computer method for wholesale commerce, comprising the steps of:
  - providing a digital processor on a worldwide network
  - 5 maintaining a database on the digital processor, the database holding seller information, buyer information and merchandise information; and
  - coupling a user interface with the database enabling seller users and buyer users to communicate to each other and make transactions utilizing the database.
- 10 2. A computer method as claimed in Claim 1 wherein the merchandise information includes quantity available; and
  - the step of maintaining the database includes removing the merchandise information of a certain item when the quantity available decreases to zero.
- 15 3. A computer method as claimed in Claim 1 wherein said maintaining the database includes:
  - specifying in the database a termination date for a certain item, and
  - removing the certain item from the database on the termination date.
- 20 4. A computer method as claimed in Claim 1 further comprising:
  - posting in the database an indication that a certain piece of merchandise is being auctioned;
  - transmitting through the user interface auction bids from respective buyer-users to a seller-user of the certain merchandise; and
  - confirming sale of the certain merchandise upon seller-user
  - 25 acceptance of a bid.
5. Computer apparatus for wholesale commerce comprising:

-20-

a digital processor connected for communication on a worldwide network;

a database maintained on the digital processor, the database holding seller information, buyer information and merchandise information; and

5 a user interface coupled to the database for enabling seller users and buyer users to make transactions utilizing the database.

6. Computer apparatus as claimed in Claim 5, wherein the merchandise information includes quantity available, and

10 the apparatus further comprising means for remaining merchandise information of a certain item when the quantity available of that item becomes zero.

7. Computer apparatus as claimed in Claim 6 wherein the database holds a termination date for a certain item, and

15 further company removal means for removing the certain item from the database on the termination date.

8. Computer apparatus as claimed in Claim 5 wherein the transactions include best-bid auctions.

1/6

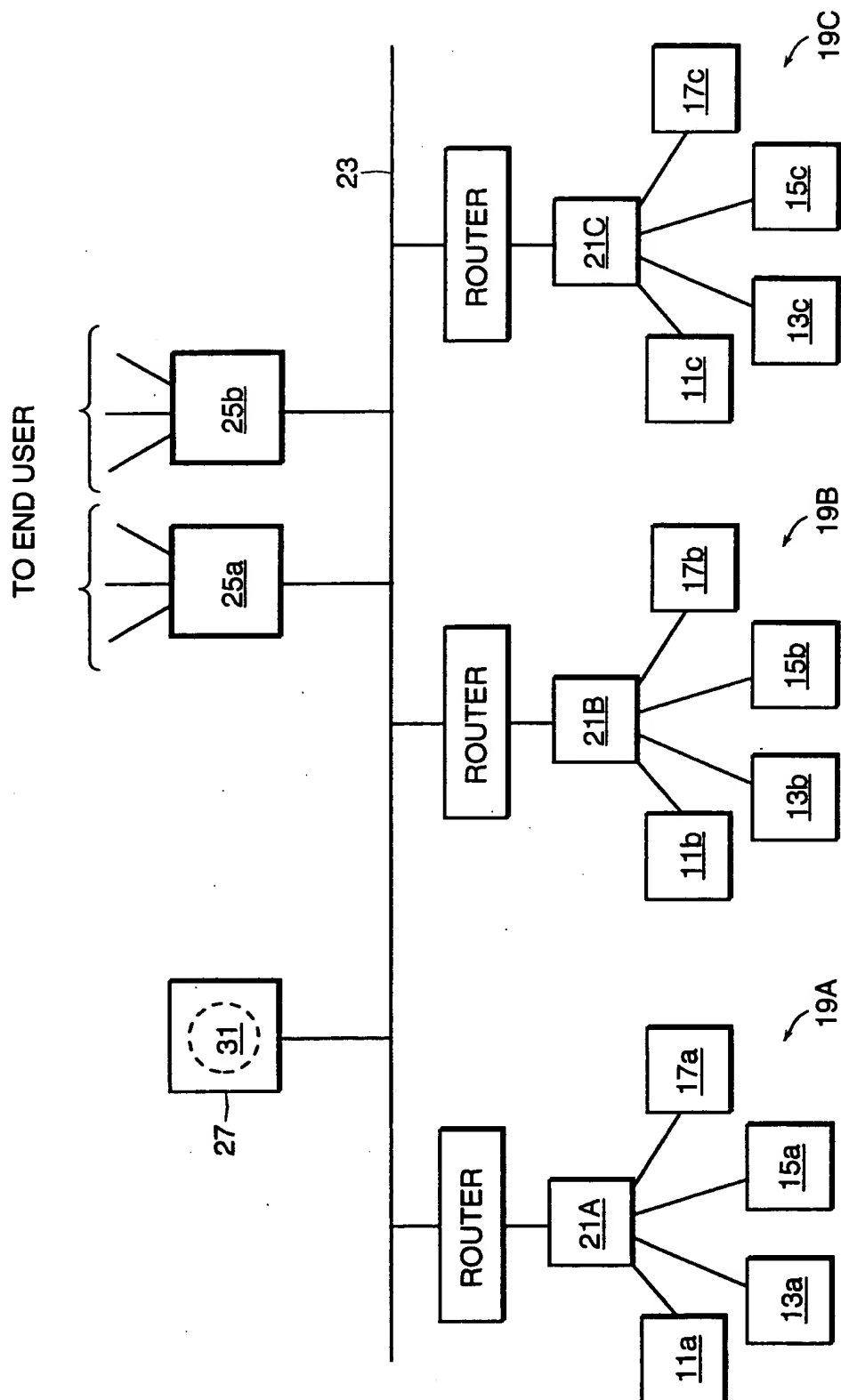


FIG. 1

2/6

## WEB SITE FEATURES

- 
- 
- THE HOME PAGE
    - ⇒ CLEAR, CRISP, COLORFUL GRAPHICS
    - ⇒ GENERAL CATEGORIES
    - ⇒ "ABOUT US"
    - ⇒ REGISTRATION ICON
    - ⇒ CUSTOMER SERVICE ICON
    - ⇒ ADVERTISING BANNERS
    - ⇒ LINKS TO AFFILIATE MARKETING PARTNERS
    - ⇒ TESTIMONIALS
    - ⇒ "HOT DEALS" ICON CHANGES DAILY (SUPPLIERS PAY FOR SPACE)
    - ⇒ CALLS TO ACTION
  
  - THE CATALOG PAGE
    - ⇒ MAIN CATEGORIES (E.G. HOUSEWARES)
    - ⇒ SUB-CATEGORIES (E.G. TOASTERS & OVENS)
    - ▣ PRODUCT CHOICES WITHIN SUB-CATEGORIES (4 SLICE TOASTMASTER TOASTER)
    - ▣ PRODUCT SPECS, PICTURES & PACKAGING INFORMATION
    - ⇒ MANUFACTURER DROP-DOWN SCREENS
    - ⇒ ADVERTISING BANNERS AND/OR SPECIALS OF THE DAY
    - ⇒ "HOT DEALS" (CLOSEOUTS) WITH "MAKE US AN OFFER" ICON

FIG. 2a



3/6

## WEB SITE FEATURES

---

---

- THE REGISTRATION PAGE
  - ⇒ FAST AND CONVENIENT REGISTRATION
  - ⇒ U.S. CUSTOMERS USE TAXPAYER I.D. OR RESALES CERTIFICATE
  - ⇒ INTERNATIONAL CUSTOMERS RECEIVE CONFIRMATION VIA EMAIL
  - ⇒ DATABASE OF AREA CODES AND COUNTRY CODES TO VERIFY AUTHENTICITY OF NEW MEMBERS
  - ⇒ CLICK OPTION TO RECEIVE EMAIL UPDATES, NEWSLETTER, ECT.
  
- THE TRANSACTION PAGE
  - ⇒ SHOPPING CART FORMAT (SHOPPING TRUCK)
  - ⇒ MINIMUM PURCHASES CLEARLY STATED
  - ⇒ OPTION FOR CREDIT CARDS, PURCHASE ORDERS
  - ⇒ OPTION TO EMAIL OR FAX ORDER
  - ⇒ GENERAL TERMS AND CONDITIONS
  - ⇒ ORDER TRACKING FEATURE
  - ⇒ AUTOMATIC CURRENCY CONVERSION

**FIG. 2b**

4/6

## CATEGORIES

FIELD	TYPE	LENGTH	NOT NULL	UNIQUE INDEX
Title	char	100	Y	N/A
Reference	char	100	N	N/A
Level	char	2	N	N/A

## SEARCH

FIELD	TYPE	LENGTH	NOT NULL	UNIQUE INDEX
UPC	char	25	Y	N/A
FeaturedItem	char	2	N	N/A
PostDate	date	4	N	N/A
SellByDate	date	4	N	N/A
LastModified	date	4	N	N/A
MainCategory	char	100	N	N/A
SubCategory1	char	100	N	N/A
SubCategory2	char	100	N	N/A
SubCategory3	char	100	N	N/A
OnOff	char	3	N	N/A
lupc	index	N/A	N/A	Y

## USERS

FIELD	TYPE	LENGTH	NOT NULL	UNIQUE INDEX
U_id	int	4	Y	N/A
BuyerSeller	char	2	Y	N/A
FederalTaxID	char	30	N	N/A
FirstName	char	40	N	N/A
LastName	char	50	N	N/A
Title	char	30	N	N/A
Company	char	60	N	N/A
Address1	char	40	N	N/A
Address2	char	40	N	N/A
Address3	char	40	N	N/A
City	char	40	N	N/A
State	char	30	N	N/A
Zip	char	10	N	N/A
Zip4	char	4	N	N/A
Country	char	30	N	N/A
Phone	char	20	N	N/A
Fax	char	20	N	N/A
Email	char	60	Y	N/A
AcceptEM	char	2	N	N/A
UserName	char	30	Y	N/A
Password	char	30	Y	N/A
ChallengePhrase	char	50	N	N/A
ChallengeAnswer	char	50	N	N/A
LastLogin	int	4	N	N/A
Cookie	char	20	N	N/A
Lid	index	N/A	N/A	Y

FIG. 3

5/6

## BILLSHIP

FIELD	TYPE	LENGTH	NOT NULL	UNIQUE INDEX
U_id	int	4	Y	N/A
Type	char	2	Y	N/A
Location	char	80	Y	N/A
Company	char	60	N	N/A
Address1	char	40	N	N/A
Address2	char	40	N	N/A
Address1	char	40	N	N/A
City	char	35	N	N/A
State	char	30	N	N/A
Zip	char	10	N	N/A
Zip4	char	4	N	N/A
Country	char	30	N	N/A
Iid	index	N/A	N/A	N

## DETAIL

FIELD	TYPE	LENGTH	NOT NULL	UNIQUE INDEX
UPC	char	25	Y	N/A
ModelNo	char	30	N	N/A
Specifications	char	500	N	N/A
CartonUPC	char	25	N	N/A
PricePerCase	int	4	N	N/A
MasterPackQt	char	30	N	N/A
UnitCartonDim	char	30	N	N/A
UnitWeight	char	30	N	N/A
MPCartonDim	char	30	N	N/A
MPWeight	char	30	N	N/A
MPCube	char	30	N	N/A
MPperPallet	char	30	N	N/A
CQuantity	char	30	N	N/A
CCartonDim	char	30	N	N/A
CWeight	char	30	N	N/A
CCube	char	30	N	N/A
CperPalette	char	30	N	N/A
CperLayer	char	30	N	N/A
LayersperPallet	char	30	N	N/A
PallettesperTru	char	30	N	N/A
PaymentTerms	char	500	N	N/A
ShippingTerms	char	500	N	N/A
ShippingPolicy	char	500	N	N/A
Credit	char	500	N	N/A
Instructions	char	500	N	N/A
FinanceCharges	char	500	N	N/A
OtherTerms	char	500	N	N/A
AdCoOpAccrual	char	50	N	N/A
AccountsPayable	char	80	N	N/A
ShippingPoint1	char	80	N	N/A
ShippingPoint2	char	80	N	N/A
ShippingPoint3	char	80	N	N/A
ReturnsPolicy	char	500	N	N/A
LeadTime	char	30	N	N/A
ExportOnly	char	3	N	N/A
lupc	index	N/A	N/A	Y

FIG. 4

6/6

FIELD	TYPE	LENGTH	NOT NULL	UNIQUE INDEX
UPC	char	25	Y	N/A
SellerID	int	4	Y	N/A
Logo	char	30	N	N/A
Title	char	100	N	N/A
Manufacturer	char	60	N	N/A
Description	char	500	N	N/A
MSRP	int	4	N	N/A
ListPrice	int	4	N	N/A
OpBuyMakeOffer	int	4	N	N/A
CloseInline	char	2	N	N/A
QtAvailable	int	4	N	N/A
MinimumOrder	int	4	N	N/A
lupc	index	N/A	N/A	Y

## ORDERS

FIELD	TYPE	LENGTH	NOT NULL	UNIQUE INDEX
U_id	int	4	Y	N/A
OrderID	int	4	Y	N/A
Status	int	4	Y	N/A
OrderDate	date	4	N	N/A
LastAccess	uint	4	N	N/A
lid	index	N/A	N/A	N
lorderid	index	N/A	N/A	Y

## LINEITEM

FIELD	TYPE	LENGTH	NOT NULL	UNIQUE INDEX
OrderID	int	4	Y	N/A
UPC	char	25	Y	N/A
Qty	int	4	Y	N/A
POnum	char	30	N	N/A
ShipTo	char	80	N	N/A
PriceToPay	int	4	Y	N/A
OpBuyMakeOffer	int	4	N	N/A
Status	int	4	N	N/A
ListPrice	int	4	N	N/A
MSRP	int	4	N	N/A
Comments	text	50	N	N/A
lorderID	index	N/A	N/A	N

FIG. 5

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 99/28329

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F17/60

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DALTON G: "Bazaar advantages electronic marketplaces" INFORMATIONWEEK, 10 MAY 1999, CMP MEDIA INC, USA, no. 733, pages 42-44, 46, 48, XP002138752 ISSN: 8750-6874 Retrieved from the internet on the 24th of May 2000 URL: < <a href="http://www.informationweek.com/shared/printArticle?article=infoweeek/733/prmarket.htm&amp;pub=iwk">http://www.informationweek.com/shared/printArticle?article=infoweeek/733/prmarket.htm&amp;pub=iwk</a> > page 42 -page 48	1,4-6,8
X	WO 99 03056 A (WALKER ASSET MANAGEMENT LTD) 21 January 1999 (1999-01-21)	1,2,5
Y	claim 95 page 35, line 11 - line 13 page 25, line 15 - line 18 — -/-	3,7

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"A" document member of the same patent family

Date of the actual completion of the international search

25 May 2000

Date of mailing of the international search report

14/06/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Pedersen, N

# INTERNATIONAL SEARCH REPORT

In International Application No

PCT/US 99/28329

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 99 14698 A (MAINTENET CORP) 25 March 1999 (1999-03-25) page 60, line 34 - line 35	3,7
A	LEANE J: "Work in progress report: Chemdex and the business-to-business marketmaker business model" PROCEEDINGS OF INTERNATIONAL WORKSHOP ON ADVANCE ISSUES OF E-COMMERCE AND WEB-BASED INFORMATION SYSTEMS. (CAT. NO.PR00334), SANTA CLARA, CA, USA, 8 - 9 April 1999, pages 68-72, XP002138753 1999, Piscataway, NJ, USA, IEEE, USA ISBN: 0-7695-0334-9 page 68, column 1, line 1 -column 2, line 8	1-8

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/28329

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9903056 A	21-01-1999	AU 8290198 A	08-02-1999
WO 9914698 A	25-03-1999	AU 9483698 A	05-04-1999